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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,841	12/20/2001	Kevin Stone Manes	077943-0147	1463
22428	7590	07/22/2004		
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER HUFFMAN, JULIAN D	
			ART UNIT 2853	PAPER NUMBER

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,841

Applicant(s)

MANES ET AL.

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 22-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 20, 21 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 13-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 22-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 8, 12, 20, 21 and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Katsuyama (U.S. 5,854,643).

Katsuyama discloses a printer comprising:

a frame (fig. 2, element 1000);

a set of non-movable print heads fixed to the frame (element 1010, column 10, lines 11-14);

an idler carriage (fig. 5, element 141U) for carrying a web, said idler carriage disposed a distance from the set of print heads so that ink from the print heads will be received by the web; and

a carriage translation assembly to move the idler carriage to vary the distance between the set of print heads and the idler carriage (column 7, lines 7-10);

wherein the set of print heads comprise inkjet print heads (column 10, lines 11-14);

wherein the carriage translation assembly comprises at least one slide shaft (145, 151);

wherein the idler carriage is disposed to slide linearly along the slide shaft (fig. 5);
and

a force mechanism is provided for exerting a force to move the idler carriage linearly along the slide shaft (element 143R);

wherein the slide shaft moves within a bearing set in the idler carriage (fig. 6, element 154, slide shaft 151 moves in bearing set 154);

further comprising an accumulator structure for taking up slack in the web as the idler carriage moves (140U);

wherein the accumulator structure maintains constant web tension throughout the travel range of the idler carriage (since roller moves as idler carriage moves, roller maintains constant tension, see also column 2, lines 22-33 and column 2, lines 53-58);

wherein the accumulator structure comprises at least one accumulator roll (140U); and

an accumulator roll tensioner for automatically positioning the accumulator roll in response to the movement of the idler carriage in order to maintain a tension on the web (142);

further comprising a fixed block located in the frame which sets at least in part, the upper position of the idler carriage (141L);

wherein the fixed block is disposed at one end of the slide shaft (fig. 5);

wherein the carriage translation assembly includes at least three slide shafts disposed in parallel relative to each other (145, 141);

further comprising means for setting alternate upper positions of the idler carriage means (element 143R).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuyama in view of Kurata et al (6,068,374).

Katsuyama discloses everything claimed with the exception of accumulator structure comprising a leg disposed at an end of the idler carriage and extending away from the print heads in a direction of movement of the idle carriage; and

an idler roll disposed at the end of the leg, with the web extending down along the leg, around the idler roll, and back up to the idler carriage.

Kurata et al. disclose such an arrangement (fig. 43a, fig. 43b, column 41, line 51-column 42, line 14).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the idler roll structure of Kurata et al. in the invention of Katsuyama. The reason for performing doing such would have been to provide a means to assure that an intensity of tension applied to the printing substrate is kept substantially constant (column 42, lines 10-12).

6. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuyama in view of Regev et al.

Katsuyama discloses at least three rolls (140U, 140L) with a center roll thereof (140U) being movable by an actuator.

Katsuyama does not disclose a piston actuator.

Regev et al. teach a piston actuator (fig. 7) for moving a printer platen (column 6, lines 42-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the actuator of Katsuyama with the piston actuator of Regev et al. The reason for performing the modification would have been to enable the platen to move in small discrete steps of a few microns (column 6, lines 43-46).

Allowable Subject Matter

7. Claims 13-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regards to claims 13-19, the prior art of record does not disclose the claimed clamping mechanism.

Response to Arguments

8. Applicant's argument that Katsuyama does not disclose a non-movable print head is not persuasive. Full line printheads are fixed printheads, as is well known in the art.

Applicant's argument that Katsuyama does not disclose that the idler carriage is disposed to slide linearly along the slide shaft is not deemed persuasive. The word "along" means with. Applicant's claim language does not state that the idler carriage slides on the slide shaft.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Since the slide shafts, 142, 143R, are fixed to the idler carriage, and the idler carriage slides as the slide shafts move inside the lower mount 141L, the idler carriage is disposed to slide linearly along the slide shaft.

Applicant's argument that the shaft 151 is not a slide shaft is not persuasive. The screw slides along the threads and thus is a slide shaft.

Applicant's argument that Katsuyama keeps tension of a conveyor belt constant and not of a web is not persuasive. Firstly, the belt is a web, secondly, since the recording media lies on the belt, maintaining tension constant on the belt therefore maintains tension constant on the recording media (column 2, lines 38-43 and 60-65).

Applicant's argument that Katsuyama does not disclose an accumulator roll tensioner for automatically positioning an accumulator roll in response to movement of an idler carriage is not deemed persuasive. The roll moves as the idler carriage moves (column 7, lines 23-27), as applicant has indicated in the response. This satisfies the claim limitation. Additionally, the limitation for automatically positioning is directed towards the intended use of the device and does not further limit the structure of the apparatus.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Applicant further argues that the roll does not maintain tension on the web. Again, this is directed towards the intended use of the apparatus. Further, the roll clearly maintains tension.

Applicant's argument that Katsuyama does not disclose a fixed block which sets the upper position of an idler carriage is not persuasive. The upper unit 141U provides the upper position of the idler carriage, which is fixed relative to the lower unit 141L and which fixes the position of the lower unit.

Applicant's arguments with regards to claims 28 and 29 are also not persuasive. The office action provides reference numerals for the elements that satisfy the means plus function claim language.

Applicant's argument that Katsuyama in view of Kurata do not teach a structure for taking up slack in the web as the idler carriage moves is not persuasive. The recitation is again the intended use of the device. Further, the roller of Kurata moves in response to changes in tension on the web to maintain a constant tension (column 42, lines 10-14) regardless of the origin of the tension and the combination teaches the claimed limitation.

Applicant's argument that Kurata does not teach a leg and idler roller is not persuasive. Fig. 43 shows a leg 2220 and a roller 2210. Applicant's argument that the device is not disposed at an end of an idler carriage is not persuasive. The figure shows the device upstream from the platen and the combination provides the device upstream from the idler carriage, which is synonymous with an end of the idler carriage.

Applicant's argument that Regev does not disclose a piston actuator that is controlled by a signal indicative of the movement of an idler carriage is not persuasive. The piston actuator of Regev is adjusted by a signal (column 55, lines 55-59) and since the combination provides the piston actuator as the device for controlling movement of the idler carriage, the combination teaches the claimed invention.

Applicant states that the motivation for combining is a result of a general implementation of the combination and not a reason why one having ordinary skill in the art would make the combination. The motivation is not merely a result of the combination, but is explicitly stated in the references. "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art", *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ 2d, 1453, 1457-58 (Fed. Cir. 1998). Applicant suggests that the motivation may not be the result of a general implementation of the combination, this position has no legal precedence.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571)272-2147. The examiner can generally be reached Monday through Friday from 9:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



JH

July 15, 2004



Thinh Nguyen
Primary Examiner
Technology Center 2800